

HUMAN RESOURCES STATISTICS PROGRAM

The Human Resources Statistics Program (HRS) is responsible for data on the educational system and the Nation's science and engineering (S&E) workforce and characteristics of those participating in education and workforce activities. HRS compiles data from SRS surveys and from other national sources and also analyzes data from special studies to produce the biennial congressionally mandated report *Women, Minorities, and Persons with Disabilities in Science and Engineering*. The program has responsibility for two annual and three biennial surveys:

- ◆ The annual **Survey of Graduate Students and Postdoctorates** collects data from all institutions in the United States offering postbaccalaureate programs in science and engineering. Information is collected on student status, demographic characteristics, and major source of Federal support. The universe is comprised of all doctorate-granting and master's-granting institutions.
- ◆ The annual **Survey of Earned Doctorates** collects responses from all new doctorate recipients at U.S. doctorate-granting institutions, including information about their field of study, demographic characteristics, sources of financial support, educational history, and future plans.

HRS derives core data on scientists and engineers from three biennial surveys. During the 1990's, these surveys have been conducted in 1993, 1995, and 1997.

- ◆ The **National Survey of College Graduates** is based on a sample of about 215,000 individuals (roughly 1 in 150) who reported on their 1990 Census returns that they had at least a bachelor's degree.
- ◆ The **Survey of Doctorate Recipients** samples about 50,000 holders (roughly 1 in 11) of S&E doctoral degrees.

- ◆ The **Survey of Recent College Graduates** (also known as the New Entrants Survey) uses a 2-stage probability sample of approximately 25,000 S&E bachelor's and master's degree recipients (roughly 1 in 40) to track activities of persons receiving these degrees in the 1990s.

Results from these three surveys are combined in a comprehensive system of data about scientists and engineers. Known as SESTAT (Scientists and Engineers Statistical Data System), the system includes data on education, occupation and demographic and other background characteristics. (See writeup on SESTAT in "Electronic Dissemination" section, on page 4.)

Occupational (SOC) data by detailed industry (SIC) are obtained from the U.S. Bureau of Labor Statistics, Occupational Employment Survey. Administratively collected data on immigrant scientists and engineers are assembled from Immigration and Naturalization Service records.

The program also assembles and publishes statistics on education and the workforce from other agencies. Regular reports provide data on degrees earned in science and engineering fields and on special topics such as *Foreign Participation in U.S. Science and Engineering* and *Undergraduate Origins of Science and Engineering Doctorates*.

Staff collaborate with the National Center for Education Statistics on surveys of higher education institutions; data on precollege science and mathematics education; and taxonomies of disciplines, institutions, and racial/ethnic categories. Staff work with the U.S. Bureaus of the Census and Labor Statistics, the U.S. Immigration and Naturalization Service and other Federal agencies to obtain data and to develop and prepare reports on aspects of the nation's S&E workforce.

Detailed Statistical Tables*Characteristics of Doctoral Scientists and Engineers in the United States:*

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Characteristics of Recent Science and Engineering Graduates:

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Immigrant Scientists and Engineers: 1993 96-322*Graduate Students and Postdoctorates in Science and Engineering:*

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Science and Engineering Degrees:

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Science and Engineering Degrees, by Race/Ethnicity of Recipients:

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Science and Engineering Doctorate Awards: 1966 97-329*Scientists, Engineers, and Technicians in Nonmanufacturing*

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Scientists, Engineers, and Technicians in Trade and Regulated

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| <i>Industries: 1994</i> | 98-305 |
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Selected Data Tables*Selected Data on Science and Engineering Doctorate Awards:*

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Special Reports*Undergraduate Origins of Recent (1991-95) Science and Engineering*

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Who is Unemployed? Factors Affecting Unemployment Among

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Special Reports—Continued

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1996 96-311

Data Briefs

“Graduate Enrollment of Women and Minorities in Science and Engineering Continues to Rise” 98-302

“S&E Bachelor’s Degrees Awarded to Women Increase Overall, but Decline in Several Fields” 97-326

“Doctoral Awards Increase in S&E Overall, but Computer Science Declines for First Time” 97-325

“Services Sector S&E Employment Rises, Then Falls Sharply As Engineering and Technician Jobs Are Cut” 97-322

“Major Declines in Admissions of Immigrant S&Es in FY 1994” 97-311

“Graduate Enrollment Drops for the Second Year in a Row” 97-303

“Women and Underrepresented Minority Scientists and Engineers Have Lower Levels of Employment in Business and Industry” 96-331

“Recent Engineering Graduates Out-Earn Their Science Counterparts” 96-327

“Non-U.S. Citizens are 40 Percent of S&E Doctorate Recipients from U.S. Universities in 1995” 96-315

“Bachelor’s Degrees Awarded to Racial/Ethnic Minorities in Science and Engineering Increase From 1990-94” 96-314

“Graduate Enrollment in Science and Engineering Decreased by 1 Percent in 1994” 96-312

“Science & Engineering Doctorate Awards Are at an All-Time High” 96-307

“Nonmanufacturing S&E Employment Continues to Increase, But at Slower Rate” 95-343

“More S&E Bachelor’s Degrees Are Being Earned by Racial/Ethnic Minorities” 95-329

“Immigration of Scientists and Engineers Increased Slightly in 1993, Despite Decline in Immigration Overall” 95-327

“National Database of Undergraduate Curriculum Available” 95-313

Data Briefs—Continued

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| “Employment Status of Recent Science and Engineering Graduates Varies by Level and Field of Degree” | 95-308 |
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Issue Briefs

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| “Ph.D. Unemployment Trends: Cause for Alarm?” | 97-318 |
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